

2. Notice of Recordation of Assignment of Patent 6,465,420 from Quest International, B.V. to E. I. DuPont de Nemours & Company.
3. Recordation Form Cover Sheet Patent 6,465,420.
4. Patent Assignment of Patent 6,465,420 from Quest International, B.V. to E. I. DuPont de Nemours & Company.
5. Terminal Disclaimer over Patent 6,465,420.
6. Recordation Form Cover Sheet 09/509,863, (Attorney Docket LP 4285).
7. Assignment PCT/GB98/03056, (Attorney Docket LP 4285).
8. Statement Under 37 CFR 3.71(a), 3.73(b) Appointment of Attorney of Record.
9. Associate Power of Attorney.

**Status of Claims:**

Claims 1-11 are pending in the application. Claims 1, 3 and 8 have been amended to clarify how the perfume composition is applied to the spandex. Support for such amendments is found in the specification, *inter alia*, at page 3, lines 6-7; page 6, line 24 - page 7, line 2 and lines 18-21.

**Interview Summary:**

During the March 11, 2003 interview, we focused on the prior art, specifically, Grohe (US 4,844,902) and Perring (US 6,465,420), and on the rejection under § 112, 2<sup>nd</sup> paragraph.

Respecting the § 103 rejection over Grohe, Primary Examiner Cole and Examiner Pierce agreed that including recitation in the claims that the perfume composition is applied to the textile from a solution patentably distinguishes over Grohe.

Respecting the § 112, 2<sup>nd</sup> paragraph rejection for indefiniteness, we discussed Applicants' view that while the claims may encompass many compounds, the pending

claims are not indefinite because a person of skill would be able to determine which compounds would meet the requirements set forth in the claims without undue experimentation. The Examiners indicated this argument to be persuasive.

Respecting the Obviousness Double Patenting rejection over Perring, the Examiners agreed that a properly filed Terminal Disclaimer would render this rejection moot. The Applicant submits herewith a proper Terminal Disclaimer.

**Summary of the Present Invention:**

The present invention relates to methods for depositing perfume compositions onto spandex fabric and the retention of those perfume compositions by the spandex fibers.

The perfume compositions are defined into two classes:

Category A: hydroxylic materials (alcohols, phenols, and salicylates) having an octanol/water partition coefficient (P) whose common log ( $\log_{10} P$ ) is at least 2.5, and whose Kovats index is at least 1050; and

Category B: esters, ethers, nitriles, ketones, and aldehydes having P at least 2.5 and Kovats index at least 1300.

In the present invention the perfume compositions are deposited on the spandex fibers from a solution phase (Page 3, lines 6-7; page 6, line 24 - page 7, line 2; page 7, lines 18-21).

Persons of skill in the chemical arts are well familiar with the significance of  $\log_{10} P$  as a measure of hydrophobicity and water solubility. Moreover, practitioners of the art are aware that values of  $\log_{10} P$  may be found in the literature, and that where such values are not available from the literature, they are measured by simple techniques or are estimated using commercially available software. The significance and determination of  $\log_{10} P$  was disclosed in the original specification at page 8, line 19 to page 9, line 3.

Persons of skill in the perfumery arts readily appreciate that the Kovats index is a descriptor relating to the molecular size and boiling point of a compound, and therefore, that the index is a measure of the relative volatility of a compound. Persons of skill also recognize that determination of the Kovats index is simply performed by gas

chromatography. The significance and determination of Kovats index was disclosed in the original specification at page 9, lines 6 - 23.

**Rejections Under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph:**

Claims 1-11 were rejected under 35 U.S.C. § 112, 2<sup>nd</sup> Paragraph, as being indefinite. The Examiner alleges the claims to be indefinite because the claims recite physical characteristics, but not specific compositions. According to the Examiner, claims so formed are invalid as vague and indefinite because they cover “any conceivable combination of ingredients, either presently existing or which might be discovered in the future.” Applicants respectfully traverse as to all pending claims.

As set forth above, persons of skill in the chemical arts generally, and the perfumery arts more particularly, appreciate the significance of values of Log<sub>10</sub>P and Kovats index. Moreover, such persons of skill may readily obtain values for the relevant parameter(s) without undue experimentation. Because the compounds covered by the claims of the present invention are defined to be in specific classes of compounds as set forth in the claims, and because individual class members included in the claims are determinable without undue experimentation, the claims are definite. The rejection under § 112, 2<sup>nd</sup> paragraph should be withdrawn.

**Rejection Under 35 U.S.C. § 103(a):**

Claims 1-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Grohe (US 4,844,902).

Grohe relates to topically-applicable formulations of DNA gyrase inhibitors. Specifically, Grohe relates to medicinal plasters for release of active compounds to the skin over a prolonged period of time (Column 6, lines 63-65).

The Grohe's plaster has a top layer consisting of a sheet of elastic fabric (Column 6, line 68 - Column 7, line 3) wherein said fabric is coated or impregnated with a polyisobutylene polymer (Column 7, lines 3-10). The plaster further consists of a reservoir layer and a pull-off protective layer (Column 7, line 4). The reservoir layer consists of polyisobutylene polymers, an entraining agent and a resin. The active compounds are incorporated into the reservoir layer (Column 8, lines 46-50).

Fragrant substances, such as salicylates, menthol, and thymol, may be added to the active substances incorporated into the reservoir layer (Column 8, lines 51-57).

Examples 1 and 2 (column 18) in Grohe describe formation of the plaster as a three-step process:

- 1) a polyisobutylene solution is applied to siliconized paper, a fabric is laminated to the polymer, and the system is dried;

- 2) a reservoir layer is formed by applying a wet mixture, comprising the reservoir components, to siliconized paper and drying; and
- 3) the polymer-impregnated fabric is laminated to the reservoir layer.

In contrast, the present invention relates to the deposition of perfume compositions onto spandex fabric and the retention of those fragrance materials by the spandex fibers. The perfume compositions are deposited on the spandex fibers from a solution phase (Page 3, lines 6-7; page 6, line 24 - page 7, line 2; and page 7, lines 18-21).

**Lack of Incentive:** Grohe does not teach or suggest that fragrance materials be deposited on spandex fibers from a solution phase. Thus, the prior art lacks the necessary direction or incentive to those of ordinary skill in the art to render a rejection under 35 U.S.C. § 103 sustainable. The mere fact that prior art may be modified in the manner suggested in the Office Action does not make the modification obvious unless prior art suggests the desirability of the modification. See *in re Gordon*, 221 U.S.P.Q 1125 (Fed. Cir. 1984), *In re Laskowski*, 10 USPQ2d 1397 (Fed. Cir. 1989), and *In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992). The rejection seems to be in the nature of “ought to be tried” which is not the standard with which obviousness is determined. See *Gillette Co. v. S.C. Johnson & Son, Inc.*, 16 USPQ2d 1923 (Fed. Cir. 1990) and *Jones v. Hardy*, 220 USPQ 1021, 1024 (Fed. Cir. 1984).

The present invention treats spandex fibers with liquids containing perfume compositions.

Grohe does not suggest spandex, *per se*.

Grohe does not teach applying fragrance substances to fabric. Grohe applies a layer of polyisobutylene to fibers and dries the polymer. Grohe teaches an active compound release system formed of polyisobutylene and active compounds. Grohe teaches drying the release system and laminating the two dried components to form a plaster.

At no time does Grohe contact fabric with perfume compositions. Rather, fragrance substances, dried in a reservoir layer, are brought into contact with a dry layer of polymer.

**Teaching away:** Teaching away from the invention is a *per se* demonstration of nonobviousness. U.S. v. Adams, 338 U.S.39, 148 U.S.P.Q. 479 (1966).

Grohe does not teach, or fairly suggest, impregnating a fabric with any of the active compounds of the reservoir layer. In fact, Grohe teaches away from doing so by teaching that the plaster releases active compounds to the skin (Column 6, lines 63-65).

The present invention teaches impregnating perfume compositions onto spandex by treatment by various liquid phases. Grohe teaches away from the present invention by forming dried phases. Accordingly, all pending claims patentably distinguish from Grohe.

#### **Rejection Under The Judicially-Created Doctrine of Obviousness Double Patenting.**

Claims 1- 11 were rejected under the judicially-created doctrine of obviousness double patenting over Perring et al. (US 6,465,420), issued October 15, 2002.

The '420 patent and the instant application are commonly owned. Applicants hereby submit a Terminal Disclaimer disclaiming the portion of the term of a patent granted on the instant application that otherwise would extend beyond the expiry of the '420 patent. The Terminal Disclaimer obviates the rejection for Obviousness-Type Double Patenting.

#### **Information Disclosure Statement**

U.S. Patent No. 6,475,473 names certain of the same inventors. Pursuant to the duty of disclosure under 37 CFR 1.97-99, Applicants hereby submit an Information Disclosure Statement and a PTO/SB/08A Form identifying the '473 patent. Enclosed is a check for \$180.00 to cover the fee under 37 CFR 1.17(p).

**Associate Power of Attorney**

Enclosed is an Associate Power of Attorney appointing the attorneys of Connolly Bove Lodge & Hutz LLP to assist the Applicants with the present application.

**Conclusion:**

Accordingly, it is respectfully requested that the foregoing amendments be entered, that the application as so amended receive an examination on the merits, and that the claims as now presented receive an early allowance.

In the event the Examiner believes a further interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

The Commissioner is hereby authorized to charge any fees or credit any overpayment associated with this communication, including any extension fees or fees for the net addition of claims, to Deposit Account No. 22-0185 (Connolly Bove Lodge & Hutz LLP).

Respectfully submitted,



John A. Evans, Reg. No. 44,100  
Connolly Bove Lodge & Hutz LLP  
1990 M Street, N.W.  
Washington, DC 20036  
Telephone: 202-331-7111

Date: July 7, 2003

**APPENDIX**  
**(Claims as amended)**

1. (Currently amended) A method of treating textile which is yarn or textile goods that have never been worn as garments and that contain spandex, comprising contacting the textile with a solution containing a perfume composition which is a mixture of fragrance materials, so that fragrance materials are deposited on the textile, wherein the perfume composition contains at least 50%, by weight of the perfume composition, of fragrance materials selected from

Category A) hydroxylic materials which are alcohols, phenols or salicylates, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1050, and

Category B) esters, ethers, nitriles, ketones or aldehydes, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1300.

2. (Original) A method according to claim 2 wherein the textile contains from 0.5 wt % to 50 wt % spandex fibers and the amount of fragrance materials deposited on the textile is from 0.001% to 1\$ by weight of the textile.

3. (Currently amended) A method of treating a spandex fiber comprising contacting the fiber with a solution containing a perfume composition which is a mixture of fragrance materials, so that fragrance materials are deposited on the spandex fiber, wherein the perfume composition contains at least 50%, by weight of the perfume composition, of fragrance materials selected from

Category A) hydroxylic materials which are alcohols, phenols or salicylates, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or

greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1050, and Category B) esters, ethers, nitriles, ketones or aldehydes, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1300.

4. (Original) A method according to claim 1 or claim 3 wherein the perfume composition contains at least 10%, by weight of the perfume composition, of fragrance materials selected from:

Category A') hydroxylic materials which are alcohols, phenols or salicylates, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) lying within the range 1050 to 1600, and

Category B') esters, ethers, nitriles, ketones or aldehydes, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) lying within the range 1300 to 1600.

5. (Original) A method according to claim 1 or claim 3 wherein the perfume composition contains at least 70%, by weight of the perfume composition, of fragrance materials that are selected from categories A and B, which materials include at least 25% by weight of the perfume composition, of fragrance materials from the categories A' and B' defined in claim 4.

6. (Original) A method according to claim 5 wherein the perfume composition contains at least 80%, by weight of the perfume composition, of fragrance materials selected from

categories A and B, which materials include at least 40%, by weight of the perfume composition, from categories A' and B'.

7. (Original) The method of claim 1, wherein the fabric is contacted with the perfume composition in a fabric finishing step.

8. (Amended) A textile which is yarn or textile goods that have never been worn as garments and that contain spandex, comprising contacting the textile with a solution containing a perfume composition which is a mixture of fragrance materials, so that fragrance materials are deposited on the textile, wherein the perfume composition contains at least 50%, by weight of the perfume composition, of fragrance materials selected from

Category A) hydroxylic materials which are alcohols, phenols or salicylates, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1050, and

Category B) esters, ethers, nitriles, ketones or aldehydes, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1300.

9. (Original) A textile according to claim 8 which contains from 0.5 to 50% spandex fibers and the amount of fragrance materials deposited thereon is from 0.001% to 1% by weight of the textile.

10. (Original) A textile which comprises spandex and other fibers and which has fragrance materials preferentially deposited on the spandex fibers wherein the fragrance materials are selected from:

Category A) hydroxylic materials which are alcohols, phenols or salicylates, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1050, and

Category B) esters, ethers, nitriles, ketones or aldehydes, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1300.

11. (Original) A spandex fiber having fragrance materials deposited on the spandex fiber wherein the fragrance materials are selected from:

Category A) hydroxylic materials which are alcohols, phenols or salicylates, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1050, and

Category B) esters, ethers, nitriles, ketones or aldehydes, with an octanol/water partition coefficient (P) whose common logarithm ( $\log_{10}P$ ) is 2.5 or greater, and a gas chromatographic Kovats index (as determined on polydimethylsiloxane as non-polar stationary phase) of at least 1300.